

LOOP EXTENDER WITH SELECTABLE LINE TERMINATION AND
EQUALIZATION

ABSTRACT OF THE DISCLOSURE

In accordance with the present invention, a loop extender for improving the transmission of DSL signals over a local loop is disclosed. The loop extender includes selectable line termination and equalization (SLTE) DSL amplification circuitry capacitively coupled to the local loop via bypass relay switches, a POTS loading coil adapted to be coupled to the local loop for improving transmission of POTS band signals over the local loop, and a diagnostic/control unit (DCU) coupled to the local loop for receiving and processing control signals from a central office, coupled to the bypass relay switches via a bypass relay for controlling the bypass relay switches, and coupled to the SLTE DSL amplification circuitry via a plurality of switch control lines for controlling the SLTE DSL amplification circuitry.